

WHAT IS CLAIMED IS:

1. A method for preventing constrictive vascular remodeling comprising a controlled delivery, by release from a stent, of a compound having 5 anti-proliferative and anti-inflammatory properties in therapeutic dosage amounts in the range from about thirty-five micrograms per fifteen to eighteen millimeters of stent to about four hundred thirty micrograms per fifteen to eighteen millimeters of stent, the compound substantially reducing in-lesion lumen loss both proximate and distal to the stent, the compound being incorporated in a 10 polymeric matrix comprising first and second layers wherein the compound is substantially in the first layer and the second layer acts as a diffusion barrier for the controlled release of the compound, and having a thickness in the range from about one micron to about 20 microns with the first layer having a thickness in the range from about 8 microns to about 12 microns and the 15 second layer having a thickness in the range from about 1 micron to about 2 microns.

2. The method for preventing constrictive remodeling according to Claim 1, further includes utilizing the compound to block a proliferation of 20 fibroblasts in a vascular wall in response to injury, thereby reducing a formation of vascular scar tissue.

3. The method for preventing constrictive remodeling according to Claim 2, wherein the compound comprises rapamycin.

25 4. The method for preventing constrictive remodeling according to Claim 2, wherein the compound comprises analogs and congeners that bind a high-affinity cytosolic protein, FKBP12, and possesses pharmacologic properties equivalent to rapamycin.

30 5. The method for preventing constrictive remodeling according to Claim 1, further includes utilizing the compound to affect a translation of certain proteins involved in a collagen formation or metabolism.

6 . The method for preventing constrictive remodeling according to
Claim 5, wherein the compound comprises rapamycin.

5 7. The method for preventing constrictive remodeling according to
Claim 5, wherein the compound comprises analogs and congeners that bind a
high-affinity cytosolic protein, FKBP12, and possesses pharmacologic properties
equivalent to rapamycin.

10 8. A drug delivery device for treating constrictive vascular remodeling
comprising:

a stent; and
a therapeutic dosage, in the range from about thirty-five micrograms per
fifteen to eighteen millimeters of stent to about four hundred thirty micrograms
15 per fifteen to eighteen millimeters of stent, of an agent having anti-proliferative
and anti-inflammatory properties releasably affixed to the stent for treatment of
constrictive vascular remodeling, the agent substantially reducing in-lesion lumen
loss both proximal and distal to the intraluminal medical device, the agent being
incorporated in a polymeric matrix comprising first and second layers, the agent
20 is substantially in the first layer and the second layer acts as a diffusion barrier
for the controlled release of the agent, the polymeric matrix having a thickness in
the range from about one micron to about 20 microns.

9. The drug delivery device according to Claim 8, wherein the agent
25 blocks a proliferation of fibroblasts in a vascular wall in response to injury,
thereby reducing a formation of vascular scar tissue.

10. The drug delivery device according to Claim 9, wherein the agent
comprises rapamycin.

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11. The drug delivery device according to Claim 9, wherein the agent
comprises analogs and congeners that bind a high-affinity cytosolic protein,
FKBP12, and possesses pharmacologic properties equivalent to rapamycin.

12. The drug delivery device according to Claim 8, wherein the agent affects the translation of certain proteins involved in collagen formation or metabolism.

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13. The drug delivery device according to Claim 12, wherein the agent comprises rapamycin.

14. The drug delivery device according to Claim 12, wherein the agent 10 comprises analogs and congeners that bind a high-affinity cytosolic protein, FKBP12, and possesses pharmacologic properties equivalent to rapamycin.

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